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AUTHOR Antonelli, Charles J.
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ABSTRACT

Five case studies of mentally retarded persons with maladaptive behavior problems are presented to demonstrate an interdisciplinary approach which emphasized coordination between medical and behavioral input in client treatment plans. Case studies involve persons in group home settings who engaged in such maladaptive behaviors as aggression towards others or property, self injurious behavior, public disrobing, and tantrums. Cases illustrate how medical and environmental factors may precipitate inappropriate behavior and point to the effectiveness of intervention approaches developed through cooperative effort by interdisciplinary team members. Positive effects of eliminating or reducing psychotropic medication are noted. Twelve guidelines are offered, touching on such points as the importance of reviewing medical records, evaluating environmental factors, and implementing medical and/or program changes in an individualized and systematic fashion. (CL)

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MEDICAL/BEHAVIORAL TREATMENT PERSPECTIVES: CASE STUDIES OF MENTALLY RETARDED PERSONS WITH MALADAPTIVE BEHAVIOR PROBLEMS

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By
Charles J. Antonelli
Macomb-Oakland Regional Center

Portions presented at Michigan Council for Exceptional Children Conference, March, 1982, and the Macomb-Oakland Regional Center, May, 1982.

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Michigan Services for the Developmentally Disabled

Dr. Victor Cruz, M.D.
Dr. Harry Kent, Ph.D.
Peggy Costello, M.A.
Russ Reeves, M.A.

Agencies, corporations and home managers/administrators:

Community Care, Inc. - Mary Sniezek
Northwest Regional, Inc. - Barbara Pfent, Kim Rocca, Noreen Pepkie, Pat Ashton
Community Mental Health - Home Monitor Dan Newman
Residential Systems, Inc. - Darlene Adams, Sandra Bell

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Respectfully,

Charles J. Antonelli, M.A.
Psychologist

MEDICAL/BEHAVIORAL TREATMENT PERSPECTIVES: CASE STUDIES OF MENTALLY RETARDED PERSONS WITH MALADAPTIVE BEHAVIOR PROBLEMS

Introduction:

The initial set of case studies (Antonelli and others, 1982) in this series dealt with an overview of the interdisciplinary process (I-Team) and the need for medical/behavioral coordination in client treatment plans, (Crosby, 1976). The present paper will provide additional case studies which demonstrate methods of correlating medical conditions with client behavior change and verifying those relationships. The present study will also demonstrate how the I-Team was able to factor out medical issues and that in some cases, the client's maladaptive behavior was a function of motivation rather than medical conditions or psychotherapeutic medication.

Historically, the relationship between frustration, pain and aggression has been noted in medical, military and behavioral literature. Recently, this relationship has been incorporated into the treatment of persons who are mentally retarded. The objective of the I-Team in this situation is to evaluate how medical and behavioral variables interface and then to develop short and long term treatment plans to improve the client's condition. Historically, one can demonstrate that clients have been subjected to unethical or inhumane conditions and treatment when inadequate medical and behavioral treatments were applied.

The interdisciplinary process has proven effective in stimulating disciplines to consider variables which are individual to each client, rather than continue "group treatment approaches" which failed to consider the individual need for individualized treatment.

The I-Team must come to realize that the field of psychology and medicine can be precise as long as variables are consistently and systematically evalu-

ated. Another realization which must be understood is that each client is a complex individual and, as a result, must be studied. It is difficult at this point in the science of psychology and medicine to assume that we have reached the limit of investigation and analysis. That assumption will usually result in a return to inadequate behavioral and medical services by the process of exclusion.

A recent study by Antonelli and Taylor, 1981, reviewed the group home population in terms of what percentage of clients were diagnosed as having behavior disorders and/or medical conditions. The following results were noted in a population of 582 clients:

Behavior disorder only	6.5%
Medical condition and behavior disorder	25.0%
Medical condition only	41.0%
No medical or behavioral disorder	27.5%

A closer evaluation of twenty medical conditions indicated that 74% of the clients with behavior disorders had from one to four or more separate medical conditions. Correlations between specific medical conditions and episodes or histories of behavior disorders should be the objective of future research projects.

Therefore, one objective of this paper is to confront the myth that each discipline can only specialize or deal with one aspect of the client, e.g., psychology deals with the mind and medicine deals with the body. The orientation of the I-Team is that in the final analysis, all disciplines must treat the client based on the client's needs and not from single disciplinary bias. The second objective of this paper is two-fold in that while describing the success and difficulties of the I-Team process, a series of guidelines are proposed which might prove useful in providing more acceptable analysis and treatment for persons who engage in maladaptive behavior.

Subjects and Setting:

The clients to be discussed currently live in group homes and function in the intellectual ranges which characterize persons who are mentally retarded as measured by conventional adaptive and intellectual assessment instruments. Case studies numerically will begin with case 1 through 5.

Maladaptive Behaviors:

The case studies reviewed involve clients who engage in the following behaviors:

1. Aggression directed at other persons and/or property.
2. Self-injurious behavior including:
   a. aggression directed at self;
   b. refusing to consume food.
3. Public disrobing.
4. Tantrums - screaming, crying associated with 1, 2 and/or 3.

Procedures and Definitions:

1. Quiet time - following a maladaptive behavior, the client is told to go to his room or asked to sit in a chair and relax for approximately five minutes. After a five minute absence of maladaptive behavior, the client is invited to participate in on-going activities.
2. Environmental stimulation - the informal interactions between the client and (1) persons he lives with, (2) persons who work at the group home, and (3) the community setting in which he lives.
3. Formal programming - refers to specific individualized training routines in which clients participate. These routines include structured behavior modification programs, as well as skill (habilitation or rehabilitation) training programs. These programs are designed to increase adaptive behavior as well as to decrease maladaptive behavior.

4. Baseline observations - that period of time during which the client is observed prior to implementing treatment or therapy, or changing ongoing treatment or therapy. In addition to a current behavior analysis, this period of observation would provide information as to how often maladaptive behaviors are observed. For example, a baseline study might demonstrate that 26 responses of aggression were observed in one month, or that over a period of nine days, a client averaged one hundred and fourty-two responses of food rumination per day following the evening meal.
5. Treatment or therapy - the medical approaches and procedures, and psychological procedures which interface to form any formal program.

Case Studies:

Subject 1 is an adult male who functions at the severe to moderate level of intellectual functioning. His case is an example of a client surrounded by myth in that facility staff felt that the client's behavioral medications controlled his behavior. No problems were observed during the first 5 months of placement and medications were nearly eliminated. During the sixth month, the client began engaging in aggression directed at persons and property at the group home, but not at his school program. Previous medication levels were reinstituted and the behavior continued to escalate at the group home. Medical conditions and physical exams were conducted and no variable was correlated with the maladaptive behavior. Interesting considerations in this case were that the following factors were evaluated and established:

1. Medications did not effectively control or reduce the client's maladaptive behaviors, even at increased doses and combinations.
2. No medical condition could be correlated with the emergence or escalation of maladaptive responses.
3. Historically, the behavior would occur at the group home placement but not at the school or hospital.

An analysis which resulted from variable elimination was that the client (1) tended to assault female staff and (2) wanted to return to the facility from which he was placed. The I-Team determined that the client's perspective and motivation to return to the facility neutralized the behavioral treatment and medical treatments which were applied. The I-Team determined that to continue the placement would have placed both other persons as well as the client in a situation of unnecessary risk. (It should be noted that after returning to the facility, the client's maladaptive behavior reportedly stopped and did not occur at the facility for the past 6 months. During that 6 month period, one incident did occur while being escorted by female staff on a community outing.)

The I-Team also determined that future placements for this client might be successful if short brief placements were attempted which were 4 to 5 months in duration. Another option would be placement in the community with a series of group home living experiences or moves so that the client may not consider returning to a more institutional setting.

Subject 2 is an adult male who functions adaptively and intellectually in the profound range of intelligence. His maladaptive behaviors included grunting, yelling, slapping others, throwing objects, stomping his feet, pounding on walls and refusing meals. His target behavior escalated for a period of 4 months and decreased significantly after medical intervention which involved oral surgery to remove cysts. His behavior appeared to be cyclical in that the previous year, the maladaptive behavior began with meal refusal and decreased after a short trial of pain-killing medication. With this case, the difficulty involved determining what aspects of the maladaptive behavior were stimulated and maintained by the medical condition and/or motivational factors. With the significant reduction and elimination of maladaptive behavior following the surgical intervention, the medical question

appeared partially confirmed. After approximately 8 months, meal refusal was observed and the I-Team rapidly repeated medical tests with no conclusive findings. The home manager conducted a behavior analysis and found that the voice level of a specific staff person would stimulate food refusal which occurred at the evening meal. Following inservice training, the staff person made requests in a lower tone of voice with no further food or meal refusal observed. This case is an example of how medical and environmental factors may precipitate maladaptive behavior. The case also demonstrates that behavior change can be accomplished by restructuring the environment as well as eliminating conditions which might result in irritability or pain. The observations of the home manager and direct care staff were essential to providing services to this client.

Subject 3 is an adult male who functions adaptively and intellectually in the moderate range of intelligence. His maladaptive behaviors include aggression directed at others, property and self. His treatment history involves extensive chemotherapy utilizing psychotropic medication, as well as behavior modification approaches utilizing reinforcement with physical restraint (holding), mechanical restraints (wrist cuffs), and extinction which were not effective in eliminating the self-injurious behavior which was present since 18 months of age. The current approach which has eliminated his aggression and self-injurious behavior for the past 3 months involved placing a 1.5 lb. wrist weight on one hand and gradually fading the weight by allowing the client to select a wrist watch. The past 3 months is the first time in this person's life that he has been medication free and not engaging in any self-injurious behavior at the group home. His baseline data averaged over 400 self-injurious behaviors per month for 3 months. The 3 months following the 2 weeks of initial wrist weight treatment averaged zero incidents. All credit for this success is deserved by the social worker, group home manager, home staff and psychiatric agency's behavioral analyst.

Subject 4 is an adult blind male who functions adaptively and intellectually at the profound range of intelligence. His maladaptive behaviors included (1) destruction of clothing, (2) public disrobing, and (3) aggression directed at others and self. Factors related to behavioral medications were found not to be effective in controlling or reducing his maladaptive behavior. During the period behavioral medications were in force, all target behaviors escalated. Following a reduction in medications, the aggressive behavior decreased while clothing destruction increased and averaged 107 incidents per month.

The I-Team evaluated medical factors and clothing preferences, with no results. Throughout this period, the program involved physically holding the client to prevent destruction of clothing following initial attempt and then directing the client into an acceptable task. The program also provided a positive reinforcer every 15 minute period during which no maladaptive behaviors occurred. An additional staff member was hired to conduct the program. After including periods of time in which the client did not need to be fully clothed while at home and allowing him to sleep nude at night, incidents of clothing destruction decreased from an average of 107 incidents for a 2 month period to an average of 26 for the following 2 months. The need to physically stop and hold the client decreased from an average of 60 times per month to less than 3 incidents per month for the past year.

In this case, the team established socially acceptable situations at home during which the client was not required to wear a shirt and other articles of clothing. The client was required to dress acceptably at appropriate times, such as meals and when interacting with visitors, clients, and attending community outings. This case study is an example of a case in which, once psychotropic medications were eliminated, environmental changes were made and resulted in maladaptive behavior reductions.

Subject 5 is an adult female whose case presented the I-Team with difficulties in variable control due to issues including group home staff manipulation of primary care physicians and resistance to medical and programmatic efforts. The client has been monitored for a 2.5 year period during which she received treatments utilizing (1) behavioral medications and placebo therapy, (2) surgery to eliminate an abdominal medical condition which caused pain and irritability, and (3) behavioral programming involving quiet time and a reinforcement for acceptable behavior.

During the first 6 months of observation, aggression directed at others and property, and self-injurious head banging occurred during the premenstrual and menstrual cycle and progressively escalated. During this time, behavior programs described above were recommended but inconsistently applied. The client also received Mellaril, a psychotropic behavioral medication.

Following surgery for Endometerosis, the self-injurious behavior decreased dramatically. Prior to surgery, this behavior averaged over 18 incidents per month for four months and averaged approximately 10 per month for the following four months at the group home.

The I-Team continually questioned the effect of psychotropic medication and, following the surgery, referred the client to a psychiatric agency which provided direct services of a behavior analyst at the group home. Over the next year, psychotropic medications were discontinued and a placebo was in force for approximately 3 months prior to being discontinued. The client was medication free for approximately 3 months.

During the fourth month, the client engaged in incidents of tantrumming which were environmentally stimulated and was placed back on Mellaril at the request of certain group home staff. In the following months, the Mellaril was once again reduced and eliminated. It should be noted that staff reported positive gains in social interaction and adaptive behavior skills each time the

Mellaril was discontinued. In this case, the I-Team had to deal with the issue of certain staff being dependent on the hypothetical effects of medication which repeatedly were not verified in this case. The interventions by the nurse, behavior analyst, social worker, direct care staff and psychiatrist were essential in facilitating a systematic behavioral analysis in this case. During the past year, the client has experienced months of no maladaptive behavior, but occassionally will become upset at the group home and workshop. She has been medication free for 5.5 months.

Discussion:

The five cases discussed in this paper provide an overview of the medical, motivational and environmental issues which may confront the I-Team when providing services to clients who engage in maladaptive behavior. Many of the disagreements appear to develop when a personal and/or theoretical concept of human activity or behavior conflicts with the attempt to provide individualized analysis and systematic treatment to clients. Many times, one will see the old problem of cookbook medicine and/or behavior modifications, e.g., what worked for client A should work for client B, attempt to emerge and the I-Team will then encounter more difficulty in providing individualized service. Various authors have cited reasons for difficulty in the I-Team process resulting from (1) high caseloads competing with a large crisis intervention frequency, and (2) a lack of adequate preparation of professionals and direct care staff at the academic level and job orientation level. In spite of the difficulties that I-Teams will encounter, the five case studies discussed here indicate that problems can be solved or neutralized when the best interest of the client is the objective.

The following guidelines might be considered when working with clients and evaluating their behavior:

1. Define what behaviors must be increased, decreased, taught, or regulated to increase normative social behavior and acceptance.
2. Obtain a current medical review or physical examination, e.g., allergies, illness, seizure activity, infections, constipation.
3. If the client is taking medications, review possible side effects and rule out toxicity.
4. Does the behavior occur with respect to a (1) cycle (occurring, stopping and reoccurring), or (2) season or month of the year? Collect A.B.C. data noting the behavior, antecedents, consequence, time of day, staff present, location.
5. Review past records with respect to long term and recurrent medical conditions.
6. Does historical data exist of the client's behavior during medical condition episodes, as well as under "normal" conditions?
7. Implement medical and/or program changes in an individualized, systematic manner so that an analysis is possible.
8. The maladaptive behavior may appear motivated by a need for attention. The attention factor may require direct manipulation to determine if the client in fact engages in the behavior to receive attention.
9. Environmental conditions must be evaluated and factors such as the risks of providing treatments to the client in his current placement should be considered.
10. Is the client experiencing any apparent biological developmental change, e.g., teething, menstruation, cataracts?
11. Recent dietary changes, increase or decrease, liquid food intake, food refusal. Do any hypoglycemic or diabetic conditions exist?
12. Any change in sleeping pattern and toileting elimination pattern?

In Conclusion:

The guidelines may provide a framework for obtaining the information for developing an individualized treatment plan and more so in understanding motivation and learning, as well as the medical-behavioral interface, (Brena, 1982). A future challenge for the psychologist is to evaluate the apparent neutral effects of consequences which at other times would motivate or reinforce behavior. This issue arises when aggression occurs in response to irritability or pain and is not maintained as a behavioral characteristic of the person following termination of the medical condition, (Antonelli and others, 1982).

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